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E7.3-11077

CR-135546

Progress Report No. 3

Title: A Study of the Early Detection of Insect Infestations and
Density/Distribution of Host Plants.

Citrus Insects Research
USDA, ARS
509 West Fourth St., Weslaco, Texas 78596

Period: April 1-30, 1973

EREP Investigation No. 319
NASA Contract No. 116301

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- (a) Weather conditions during this reporting period were unsuitable for aerial surveys of the test area on the planned flight lines. Aerial photographs were obtained of the S-191 test site, north of Delta Lake where the photography could be acquired without the use of flight lines. Photographs were taken at altitudes of 2000, 5000 and 10,000 feet.
- (b) The entire citrus area and other crop lands will be photographed from an altitude of 10,000 feet with aerial infrared color film when weather conditions permit. As problems develop in these areas, other flights will be made seeking more detailed information. This information will be correlated with information collected from ground surveys. The greatest emphasis will be placed on citrus at this time.
- (c) During the next reporting period additional aerial photographs will be taken of the S-191 test site at different altitudes. The entire test area will be photographed with color IR film. Ground data will be acquired during this period from the areas that have been photographed.

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DETECTION OF INSECT INFESTATIONS AND
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Research Service) 2 p HC \$3.00 CSCL 06C

N73-32252

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- (d) The results to date have resulted in the acquisition of basic data about the test areas such as the limits of the cropped land within the test site, the acquisition of baseline photography data of the S-191 test site, and the influence of seasonal changes on the photographic data gathering procedures.
- (e) The outlook for the remaining effort to be performed is still promising. Baseline data continues to be developed with aerial color IR photographs. Differences in citrus varieties remains apparent in recent photographs. As of this date no major pest infestations have occurred. The seasonal increase in significant pests of the area is expected in the near future.
- (f) Travel was limited to local trips associated with sampling sights, gathering ground truth data and flights. We anticipate no change in travel plans for the immediate future.